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EXAMINER

JACOBS, LASHONDA T

ART UNIT PAPER NUMBER

2157

DATE MAILED: 05/05/2004

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Please find below and/or attached an Office communication concerning this application or proceeding.

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Office Action Summary

Application No.

09/606,790

Applicant(s)

NGUYEN ET AL.

Examiner

LaShonda T. Jacobs

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 24 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-24 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-24 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- ☒ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: _____

DETAILED ACTION

Response to Amendment

This Final Rejection Office Action is in response to Applicants' request for reconsideration filed on November 24, 2003. Claims 1-24 are presented for further examination.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 9-11, and 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by Schuster et al (hereinafter, "Schuster", 6,360,271).

As per claim 1, Schuster discloses a server for transmitting data over a network to client having a de-jitter buffer, the server comprising:

- a regular path for transmitting data received from a source at a regular rate (col. 6, lines 53-59, col. 9, lines 7-21, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14);
- a burst path for transmitting data received from the source at a burst rate higher than the regular rate (at least implicitly) (col. 9, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14);

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- an initial burst transmit buffer in the burst path for buffering data from the source and for transmitting the buffered data to the client at the burst rate (at least implicitly) (col. 9, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14); and
- a switch for selecting to transmit data from one of the regular path and the initial burst path (col. 3, lines 20-30, col. 5, lines 21-26, and col. 14, lines 33-67).

As per claim 2, Schuster disclose:

- a control unit for switching the switch (col. 3, lines 20-30, col. 5, lines 21-26, and col. 14, lines 33-67).

As per claim 3, Schuster discloses:

- a monitor that measures an amount of the data is output through the burst path, and wherein the control unit switches the switch when a preset measure of the data is output through the burst path (col. 9, lines 66-67, col. 10, lines 1-11, col. 11, col. 14, lines 33-67, and col. 15, lines 1-14).

As per claims 9 and 15, Schuster discloses a method for a server for retransmitting streaming media to a network comprising:

- means for receiving a first portion of the streaming media along a first path (col. 6, lines 53-59, col. 9, lines 7-21, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14);
- means for outputting the first portion to the network through the first path at a first rate (col. 6, lines 53-59, col. 9, lines 7-21, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14);

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- means for receiving a second portion of the streaming media from the source along a second path distinct from the first path at least in part (col. 6, lines 53-59, col. 9, lines 7-21, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14); and
- means for transmitting the second portion to the network through the second path at a second rate lower than the first rate (col. 6, lines 53-59, col. 9, lines 7-21, lines 66-67, col. 10, lines 1-11, col. 14, lines 52-67, and col. 15, lines 1-14).

As per claims **10** and **16**, Schuster discloses:

- means for switching to outputting from the second path, from outputting from the first path (col. 3, lines 20-30, col. 5, lines 21-26, and col. 14, lines 33-67).

As per claims **11**, Schuster discloses:

- means for storing the first portion (col. 3, lines 62-67, and col. 4, lines 1-13).

As per claim **17**, Schuster discloses:

- storing the first portion in an initial burst transmit buffer (col. 3, lines 62-67, and col. 4, lines 1-13).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims **4**, **12**, **18**, and **21-24** are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster et al (hereinafter, "Schuster", 6,360,271) in view of Ketcham.

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As per claim 4, Schuster further discloses:

- a network bandwidth monitor (at least implicitly) (col. 3, lines 13-43).

Schuster does not explicitly disclose:

- a controller that controls a fill level of the initial burst transmit buffer according to the monitored bandwidth.

However, Ketcham discloses software and methods for improving communications between two or more terminal locations of a packet switched network including:

- a controller that controls a fill level of the initial burst transmit buffer according to the monitored bandwidth (at least implicitly) (col. 8, lines 49-67, col. 9, lines 1-3, lines 58-67, and col. 10, lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster and Ketcham by including a controller that controls a fill level of the initial burst transmit buffer according to the monitored bandwidth allowing the buffer size to change in order to accept numerous incoming packets.

As per claims 21 and 22, Schuster discloses a method for a client to receive streaming media over a network, comprising:

- means for receiving data having the streaming encoded therein (col. 8, lines 66-67).

Schuster does not explicitly disclose:

- means for storing the received data in a de-jitter buffer thereby increasing a fullness of the buffer;
- means for initiating play out of the stored data from the de-jitter buffer when the fullness reaches a fill level; and

- means for changing the fill level while playing out the stored data.

However, Ketcham discloses:

- means for storing the received data in a de-jitter buffer thereby increasing a fullness of the buffer (col. 8, lines 49-67, col. 9, lines 1-3, lines 58-67, col. 10, lines 1-9 and lines 17-51);
- means for initiating play out of the stored data from the de-jitter buffer when the fullness reaches a fill level (col. 8, lines 49-67, col. 9, lines 1-3, lines 58-67, col. 10, lines 1-9 and lines 17-51); and
- means for changing the fill level while playing out the stored data (col. 8, lines 49-67, col. 9, lines 1-3, lines 58-67, col. 10, lines 1-9 and lines 17-51).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster and Ketcham by including a de-jitter buffer that has a changing fill level that changes while playing out the streaming media and initiating play out of the data from the buffer when fullness reaches the fill level in order to keep communications naturally flowing between the end users.

As per claim 23, Schuster does not explicitly disclose:

- wherein the fill is increased gradually.

However, Ketchman discloses:

- wherein the fill is increased gradually (col. 9, lines 58-67 and col. 10, lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster and Ketcham by increasing the fill gradually allowing the buffer size to change in order to accept numerous incoming packets.

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As per claims **12** and **18**, Schuster discloses:

- means for monitoring a bandwidth of the network (at least implicitly) (col. 3, lines 13-43).

Schuster does not explicitly disclose:

- means for controlling a size of the first portion according to the monitored bandwidth.

However, Ketcham discloses:

- means for controlling a size of the first portion according to the monitored bandwidth (at least implicitly) (col. 8, lines 49-67, col. 9, lines 1-3, lines 58-67, and col. 10, lines 1-9).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster and Ketcham by including a controller that controls the size of the first data portion allowing the buffer size to change in order to accept numerous incoming packets.

As per claim **24**, Schuster does not disclose:

- play out is initiated before the fullness has reached a final level.

However, Ketcham discloses:

- play out is initiated before the fullness has reached a final level (at least implicitly) (col. 8, lines 49-67, col. 9, lines 1-3, lines 58-67, col. 10, lines 1-9 and lines 17-51).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster and Ketcham by initiating play out before the fullness has reached the final level in order to keep communications naturally flowing between the end users.

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5. Claims 5-6, 13-14, and 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster in view of Ketcham and in further view Vetro et al (hereinafter, "Vetro", 6,542,546).

As per claim 5, Schuster in view Ketcham disclose the invention substantially as claimed including a server for transmitting data over a network to a client having a de-jitter buffer.

Schuster in view of Ketcham does not explicitly disclose:

- a transcoder for transcoding the buffered streaming media output through the burst path.

However, Vetro discloses a multi-media delivery system for delivering a compressed bit stream through a network to a user device including:

- a transcoder for transcoding the buffered streaming media output through the burst path (abstract, and col. 7, lines 11-43, lines 54-67, and col. 8, lines 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster in view of Ketcham and in further view of Vetro by including a transcoder for transcoding the buffered media output through the burst path in order to achieve optimal quality for a given bit rate and user device.

As per claim 6, Schuster in view of Ketcham discloses:

- a network bandwidth monitor (at least implicitly) (col. 3, lines 13-43).

Schuster in view of Ketcham does not explicitly disclose:

- a transcoder for transcoding the buffered streaming media output through the burst path if the monitored bandwidth becomes less than a preset bandwidth.

However, Vetro discloses a multi-media delivery system for delivering a compressed bit stream through a network to a user device including:

- a transcoder for transcoding the buffered streaming media output through the burst path if the monitored bandwidth becomes less than a preset bandwidth (abstract, and col. 7, lines 11-43, lines 54-67, and col. 8, lines 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster in view of Ketcham and in further view of Vetro by including a transcoder for transcoding the buffered media output through the burst path if the monitored bandwidth becomes less than a preset bandwidth in order to achieve optimal quality for a given bit rate and user device.

As per claims 13 and 19, Schuster in view of Ketcham discloses the invention substantially as claimed.

Schuster in view of Ketcham does not explicitly disclose:

- means for transcoding the first portion.

Vetro discloses:

- means for transcoding the first portion (abstract, and col. 7, lines 11-43, lines 54-67, and col. 8, lines 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster in view of Ketcham and in further view of Vetro by including means for transcoding the first portion in order to achieve optimal quality for a given bit rate and user device.

As per claims 14 and 20, Schuster in view of Ketcham discloses:

- means for monitoring a bandwidth of the network (at least implicitly) (col. 3, lines 13-43).

Schuster in view of Ketcham does not explicitly disclose:

- means for transcoding the first portion if the monitored bandwidth becomes less than a preset bandwidth.

Vetro discloses:

- means for transcoding the first portion if the monitored bandwidth becomes less than a preset bandwidth (abstract, and col. 7, lines 11-43, lines 54-67, and col. 8, lines 1-2).

Therefore, it would have been obvious to one of ordinary skill in the art to combine the teachings of Schuster in view of Ketcham and in further view of Vetro by including a transcoder for transcoding the first portion if the monitored bandwidth becomes less than a preset bandwidth in order to achieve optimal quality for a given bit rate and user device.

6. Claims 7-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Schuster in view of Chou.

As per claim 7, Schuster discloses the invention substantially as claimed including a client for receiving streaming media over a network.

However, Schuster does not explicitly disclose:

- a receiving de-jitter buffer for receiving and playing out the streaming media, wherein the receiving de-jitter buffer has a changing fill level having a first threshold that initiates playout of the streaming media and that changes while playing out the streaming media to a second higher threshold.

Chou discloses:

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- a receiving de-jitter buffer for receiving and playing out the streaming media, wherein the receiving de-jitter buffer has a changing fill level having a first threshold that initiates playout of the streaming media and that changes while playing out the streaming media to a second higher threshold (col. 3, lines 30-46, col. 4, lines 40-58, and col. 9, lines 17-41).

Given the teachings of Chou, it would have been obvious to one of ordinary skill in the art at the time was made to modify Schuster by constraining the transmission bit rate of the packets in order to minimize the start-up and seek delays for streaming media allowing a user to receive and play media without any delays.

As per claim 8, Schuster does disclose the invention substantially as claimed.

However, Schuster does not explicitly disclose:

- wherein the fill is increased gradually.

Chou discloses:

- wherein the fill is increased gradually (col. 3, lines 30-46, col. 4, lines 40-58, and col. 9, lines 17-41).

Given the teaching of Chou, it would have been obvious to one of ordinary skill in the art at the time of the invention was made to modify Schuster by filling the buffer in order to minimize the start-up delay and seek delays for streaming media allowing a user to receive and play media without any delays.

Response to Arguments

7. Applicant's arguments with respect to claims 1-24 have been considered but are moot in view of the new ground(s) of rejection.

The Office notes the following arguments:

- a. There is simply no suggestion in Schuster of changing the rate that packets are transmitted to the de-jitter buffer.
- b. The first packets transmitted on a shorter delay path may arrive at the de-jitter buffer more quickly using the system of Schuster. However, the de-jitter buffer will not be filled significantly faster because the packets are not transmitted at a faster burst rate. Schuster cannot provide the reduced de-jitter buffer start-up delay provided by the present invention.
- c. Nowhere does Schuster, Ketcham or Vetro suggest the limitations specified in claims 7 and 21. There is no suggestion of changing a de-jitter fill level after a first fill/play-out level is reached.

In considering (a)-(b), Applicant's arguments filed have been fully considered but they are not persuasive. The Schuster reference does teach a server for transmitting data over a network to a client having a de-jitter buffer. Schuster also teaches sending packets at different rates in which the packets may arrive at the receiver at different times. However, Applicants' argue that the present invention teaches changing the rate that the packets are transmitted to the de-jitter buffer to reduce the buffer start-up delay is not mentioned in the claims.

In considering (c), Applicant's arguments have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

8. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

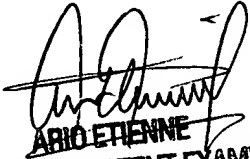
Any inquiry concerning this communication or earlier communications from the examiner should be directed to LaShonda T. Jacobs whose telephone number is 703-305-7494. The examiner can normally be reached on 8:30 AM - 5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ario Etienne can be reached on 703-308-7562. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

LaShonda T. Jacobs
Examiner
Art Unit 2157

ltj
April 21, 2004


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